Introductions Slide 1:

Hello Everyone, I am Sarah King. My avatar’s name is meshel2 and I created her in Second Life. She is going to help present Multi-user Virtual Environment’s (MUVE) strengths, weaknesses, usability, sustainability and educational recommendations. I hope you enjoy our presentation.

Hello. I’m Dale Hicks. I’m currently in the US Navy. The military has used war gaming to test theories and determine best practices which can then be shared with an entire force. Gaming contains many elements that might have some crossover value for educational application. For that reason, we’ll be discussing massive multiplayer online games as another form of new media for education.

Hello. I’m Dennis Maeger. I have been teaching middle school social studies for seven years. Today’s students are constantly using technology to communicate with their peers outside of the classroom. In order to reach these students interests educators will need to bring technology into the classroom. One aspect that will be discussed in this presentation are 3D Virtual Learning Environments. Students login into these virtual worlds and are given problems to solve. This creates an asynchronous online experience that encourages student involvement in their learning process.

Sarah Slide 2: The definition for Multi-User Virtual Environments (MUVE) according to Hearrington (2010) is a computer based technology that “provides visual, aural and tactical” forms of replicated life within a computer generated world that occurs in real time.

Sarah Slide 3: MUVEs encourage, create, and replicate original, modern intelligence.

Sarah Slide 4: MUVEs involve learners in studying real-world concerns and deciphering realistic obstacles through the use of technology know-how.

Sarah Slide 5: MUVEs enhance learning by allowing the students to actively learn how to do the activity and understand it. MUVEs endorse learner thinking through the use of teamwork to uncover and make clear learners’ abstract comprehension and rational, designing, and imaginative developments.

Sarah Slide 6: Recommendations for using MUVEs in higher education, as we propose in our in our ISD project, come from the belief that they are highly effective tools and use avatars that can demonstrates the emotional sides of individuals. MUVEs can provide educational value to older learners, but they might be somewhat overwhelming for younger learners. MUVEs can be used with multifaceted or difficult techniques, such as math models. Students’ decisions can influence the progress of outcomes within the domain, and it can expand the two-way transfer of information between the domains.

Dale Slide 7: Massive Multiplayer Online Games, or MMOGs, are a type of Multi-user Virtual Environment. Sometimes they are also known as Massive Multiplayer Online Role-playing Games, or MMORPGs, and serve as online gaming platforms which simulate real world environments.

Dale Slide 8: Players use avatars, virtual simulations of themselves, to move about and interact within the game.

Dale Slide 9: Some popular examples of MMOGs are Second Life, World of Warcraft, Guild Wars, Everquest Online, and Sims Online.

Dale Slide 10: MMOGs, like most games, have a set of rules to follow and objectives to achieve. Sometimes players follow plotted story lines where each objective encapsulates a chapter of the story. Upon completion of an objective, the next chapter is opened and made available for players to progress through to the end of the story.

Dale Slide 11: MMOGs also contain a social component which allows the players to interact outside the confines of regular game play. Players may use the social aspect of the game to strategize, strike alliances, or plan coordinated actions within the normal game play.

Dale Slide 12: Childress and Braswell (2006) claim that MMOGs provide educators an avenue to present lessons that replicate real world experiences that were previously only available face-to-face. Rockinson-Szapkiw (n.d.) supports this by citing the Society for the Advancement of Games and Simulations in Education and Training, SAGSET, to add that a MUVE enables ”the exploration of the complex nature of the real world and interdisciplinary, interacting subjects as well as the more basic need of understanding, doing and skills practice.”

Dale Slide 13: Some researchers have already begun exploring the use of MMOGs as potential eLearning platforms. Childress and Braswell found that *Second Life* provides a program, called *Campus: Second Life*,for educators to use its environment for research. This program has been capitalized on by Delwiche of Trinity University and Antonacci and Modaress of the University of Kansas Medical Center. These educators have chosen to use this environment because of its ability to simulate the real world, giving students an opportunity to explore and experiment. The Open Learning Group has established an Open Learning University in *Second Life* which provides an example of a simple virtual campus. The social capacity of the MMOG also offers opportunities for interactions like real time lectures and roleplaying.

Dale Slide 14: These interactive learning environments are not without their limitations. Walker and Rockinson-Szapkiw (2009) acknowledge that it takes time to learn to navigate and build things within the MUVE. This requires designers to “acquire a new set of skills to construct meaningful educational experiences.”

Sarah Slide 15: The student is not exempt from the limitations of a MUVE like Second Life. Perhaps the most noteworthy weakness is the amount of time students spend designing the avatars, stating “participants spent up to an hour customizing their avatars’ appearances” and also the objects must be built by the learner. MUVEs are three-dimensional environments and the environment can be difficult to interface with as well as requiring a greater level of preparation for setting up. Some feel intimidated by the complex environment and the involvedness for the user. Other learners dislike the MUVEs because it feels like playing video games. Berge (2008) states teachers should note that although the virtual worlds use state-of-the-art technologies, using MUVEs for education and training should be a second choice because there are other easier methods of delivery systems that can be just as effective.

Dale Slide 16: Berge’s statement is supported by the student’s need to download and install software prior to starting scheduled classes. Due to the graphics requirements, some students may be required to purchase additional computer memory, graphics cards, microphone headsets, and Internet access to utilize the program effectively. Students may also need to attend an orientation class prior to starting their instructional sessions as well. Despite these limitations, the consensus amongst the authors of the reviewed literature agrees that MUVEs and MMOGs offer great potential as educational tools for online learning.

Dennis Slide 17: VLEs differ from MMOGs in that they are created solely for educational purposes.

Dennis Slide 18: Students log onto a virtual world and have to interact with the environment and people in the virtual world to discover what is causing various problems in the ecosystem. By assessing students in a nontraditional way it allows students that do not perform well on standardized item based tests to succeed in the classroom. The virtual world also allows for more hands on real world experience in the field of science that students cannot get in a normal classroom setting. The goal of VLE is for students to make choices based on sound science inquiry skills.

Dennis Slide 19: River City is another example of a VLE used in science classes. Students login to River city to explore the city. As they venture through the city they will encounter various biological and ecological problems. They will have to use deduction and scientific reasoning to try and solve the problems.

Dennis Slide 20: Another example of how MUVE’s are being used in education is through the Virtual Social and Educational World. This is an example of a MUVE solely created for Secondary Education. Students can play interactive education games with each other inside a virtual world. Students receive reputation points and virtual money by playing and winning games which they can use to purchase items in their virtual world.

Dennis Slide 21: Here are two examples of VLE gaming. In pizza chop, elementary students learn the basics of fractions by answering questions about a pizza that is chopped into different slices. Fountain of knowledge asks students varying questions from their grade level social studies standards.

Dennis Slide 22: What are the weaknesses of using MUVEs in the classroom? First of all there is very little research on their effectiveness. Teachers allowing students to use class time to log into Virtual Learning Environments must make sure they are actively participating in order to gain knowledge. Lastly schools need to have computers with up to date graphic cards and high speed internet connections or the students experience will be to slow and not enjoyable.

References Slides 23-26:

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